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ENVISIONING A NEW KIND OF SCHOOL, A PLAN FOR REDESIGNING A TOTAL SCHOOL PROGRAM.

UNIVERSITY CITY SCHOOL DISTRICT, MO.

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BECAUSE OF GROUNDWORK ACCOMPLISHED IN THE COMPREHENSIVE PROJECT FOR IMPROVEMENT IN LEARNING AND OTHER COMPLEMENTARY FACTORS, THE SCHOOL DISTRICT OF UNIVERSITY CITY, MISSOURI, BELIEVES IT IS IN THE UNIQUE POSITION OF BEING ABLE TO COMPLETELY REVAMP ITS EDUCATIONAL STRUCTURE, RATHER THAN RENOVATING PIECEMEAL THE EXISTING FRAMEWORK, AS IS COMMONLY DONE. THE CREATION OF THE NEW KIND OF SCHOOL SYSTEM WOULD MOVE FORWARD SIMULTANEOUSLY IN FOUR INTERRELATED AREAS--CURRICULUM DEVELOPMENT, SUPPORTIVE ORGANIZATIONAL DEVELOPMENT, EVALUATION METHODOLOGY, AND RESEARCH COMMUNICATION. THE PHILOSOPHICAL GOAL OF THIS NEW SCHOOL WOULD BE TO CREATE AN EDUCATIONAL PROGRAM INTENDED TO AID STUDENTS IN BECOMING RESPONSIBLE, PERCEPTIVE, SELF-DIRECTED, SELF-EDUCATED, AND COMPETENT CITIZENS IN A SOCIETY WHICH WE CANNOT NOW ENVISION. (BR)

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Envisioning a New Kind of School

A

PLAN FOR REDESIGNING A TOTAL SCHOOL PROGRAM

March 1966

School District of University City, Missouri

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INTRODUCTION

This paper represents the composite work of many staff members who have studied innovative developments of the University City school district. In this plan is proposed a unifying program design in which many essential factors would be interrelated.

Envisioning a New Kind of School

A PLAN FOR REDESIGNING A TOTAL SCHOOL PROGRAM

The seeds of a new kind of school have been sown in the district of University City over a number of years. An educated citizenry, a quality staff, and an innovative administration have made progress possible and have provided a climate in which the "seeds" have now developed to a critical point.

This paper seeks to recapitulate the significant features of the Comprehensiv Project and outline a program design for the future which encompasses many interrelated factors.

I. ACCOMPLISHMENTS OF THE COMPREHENSIVE PROJECT

A. BACKGROUND

In March 1963 the School District of University City received a financial grant of $266,000 from the Ford Foundation to support a three and one-half year Comprehensive Project for Improvement in Learning. Much has been accomplished in the University City schools within this project.

Prior to the project and during the project, a continuing and systematic study has been made of the goals of the school district and of the needs and priorities of the educational program (see Attachment A, The Impact of New Ideas 1963-1964, pages 6-9; and Attachment F, "Inquiry Into Change," a report of a survey, December 1965).

The Comprehensive Project has enabled the staff to develop many segments of the program through development of materials, use of consultants, travel,

and involvement of appropriate staff. Curricular work initiated during earlier years has been diffused, new and original programs have been created, and staff efforts have been coordinated. Insights have been gained into newer concepts of learning and motivation, of school organization and of curriculum development.

The total community, including the Board of Education, citizens and staff, has been exposed to current ideas in the form of promising practices, procedures and newer developments in education. There is a general awareness of the need for redesigning the local education program to meet the challenge of a rapidly changing world.

A booklet, The Impact of New Ideas, Volume II (Attachment B), presents more fully the present level of program development in University City.

B. OUTCOMES

The accomplishments of the Comprehensive Project projected to July 1966 are outlined in "Status of Comprehensive Project Activities," a chart which accompanies this proposal (see Attachment C). Accomplishments include:

1. Implementation of American Studies team program at Senior High School.
2. Exploration of ways to aid problem learners under a "child study" project.
3. Implementation of a longitudinal plan for data processing including a computer record system for all students and development of a research program which feeds into continual program planning and upgrading.
4. Experimentation with new roles for department chairmen.
5. Introduction of composition aides for English teachers.
6. Revision of the secondary English curriculum.
7. Introduction of flexible scheduling in all the secondary schools.
8. Introduction of new-teacher seminars.
9. Experimentation with Inquiry Training.

10. Experimentation with new diagnostic tools to assess children's perceptual strengths and deficiencies as they enter kindergarten, with appropriate programming of the kindergarten curriculum including a Piaget-type project.

11. Adoption of new mathematics, K-6.

12. Development of professional outreach.

13. Communication with the community through public information meetings

14. Introduction of new methods and materials for teaching reading, K-12 introduction of i.t.a. in kindergarten and first grade; production of an i.t.a television series for teaching children and teachers.

15. Full implementation of new science programs at Senior High School and experimentation with new elementary science programs.

16. Exploration and experimentation with new social studies programs at Senior High School.

17. Development of spelling-creative writing programmed materials for a seventh grade unit.

18. Utilization of teacher aides in several team situations.

19. Investigation of teacher-load and job analysis problems.

20. Encouragement of team and cooperative teaching arrangements.

C. ACTIVITIES AND EXPENDITURES OF THE LOCAL DISTRICT

The school district has more than matched the funds of the Comprehensive Project in new developments.* Financed by the local budget are: (1) remodeling of physical facilities in several buildings to open large areas for learning resource centers and team teaching, (2) broadening of material resources, (3) increase in employment of teacher aides, (4) extension of the team teaching concept, (5) employment of new professional personnel including a specialist in educational programming and a director of learning resource centers, (6) in-service education and summer curriculum work, (7) system-wide development of foreign languages, grades 4-12, and (8) awareness of need for administrative reorganization.

*Approximately $300,000 spent over the three-year period exclusive of facilities.

The total effect on the organization has been the emergence of considerable fermentation. Related to this are the rather significant personnel changes that have been made in the school system.

The grant, while helping us move ahead has also created problems which had not seemed to exist before. In other words, we have moved to a higher and more sophisticated level of program designing and are deeply engaged in a continuing search for the school our society needs.

D. SIGNIFICANT STRANDS OF THE COMPREHENSIVE PROJECT WHICH MERIT FURTHER DEVELOPMENT

With further development, these significant strands of the project in the University City schools may have far-reaching effects on educational programs here and elsewhere:

1. General involvement of staff members in: (a) continuing study of needs of the program, (b) developing awareness of reasons for change (c) collecting facts related to problems, (d) trying out alternate courses of action, (e) evaluating results, (f) making decisions, and (g) implementing new programs.

2. Participation of staff members in framing a statement of beliefs and goals which acknowledges the needs of the school in the society of the future (Attachment E).

3. An "opening" of the organization with opportunities to make flexible variable arrangements; to utilize time and talents in new ways.

4. Interaction of teachers with teachers, teachers with principals, principals with principals, and other forms of team involvement or "peer supervision" which stimulate thinking and generate power through mutual planning, observing, working, and critiquing.

5. Development of professional outreach and liaison with research and development centers and other components of the frontier in the educational world.

6. Realization of the necessity for parent education and citizen-teache dialogue, with translation into a series of meetings.

7. A new theoretical and practical approach to the critical years of early childhood education which employs new diagnostic tools followe by programming for perceptual, language and logical thinking develop ment, and the i.t.a. approach to beginning reading and inventive writing which opens doors early and promotes independent learning early.

8. A widespread recognition of the importance of inquiry, of investigative approaches, of information processing on the part of students.

9. An introduction of curriculum reform through various approaches in several subject fields simultaneously.

10. Development of a strong research arm. Forty research studies ranging from basic research using equated groups to opinionnaire studies are in progress or have been completed. Local research is being used not only to evaluate activities but as a guide for instruction in the future. Research findings from other centers are studied carefully and both our own research and the research of others help form the base for a continuous process of curriculum planning (see Attachment D, "Research and Testing: A Report on Current Studies" and Supplement).

11. Implementation of a longitudinal plan for data processing including a computer record system for all students which can accommodate many facets of research.

E. DIFFERENTIATION BETWEEN IMPROVEMENT AND CHANGE

In our present project our goal has been to work toward program improvement. In the new proposal our purpose would be program change. What we are proposing is dynamic and revolutionary. To understand our viewpoint perhaps it would be well to differentiate between program "improvement" and "change."

Most traditional school systems that are introducing new ideas are working only for minor improvement. They are continuing to build a superstructure on top of an old program. Improvement frequently is thought to exist when an innovative practice has been added here or there without changing the educational program in depth.

Now we are proposing fundamental, basic and sweeping changes in the current educational program in University City: in the way of organizing it and in ideas about content and process. To change the program fundamentally means to change the institution and to change the roles of individu An effective strategy of program change, therefore, must proceed on three fronts: we must work simultaneously to restructure the organization, modernize the curriculum and release human dynamics.

Fundamental changes can only be successful if our strategy for change involves: (1) creating conditions for interaction and productive work; (2) planning a systematic sequence which deals with all aspects of the program; (3) providing a large amount of appropriate training and education for all persons involved; (4) seeking to develop significant perceptions about the teaching role and purposes of education; (5) providing many kinds of competencies in different combinations: and (6) providing leadership resources.

In University City we have set in motion each of these six forces and have probably reached the "point of no return" in the process of change. University City is in a uniquely favorable position just now to capitalize on staff competencies and commitment.

F. PROSPECTS FOR SUCCESS IN THE SEARCH

For a long time educators everywhere have wrestled in one way or another with the impediment of the slow pace of educational change. Very little effort of a scientific nature has been made, however, in any particular school district to test the hypothesis that customary change processes can be accelerated. Districts with the necessary will and resources should assume the responsibility of accepting this difficult and risky challenge.

The probability for success in the School District of University City is very high. Other schools are looking to us for leadership and we are drawing on the best resources available. The country is badly in need of a pattern or design which could be used as a model for the new kind of school necessary to attain far more effective education.

II. A NEW KIND OF SCHOOL

The School District of University City seeks to build on the forces set in motion by the Comprehensive Project and on recent research findings. We seek to create far more effective education for boys and girls by creating a new kind of school.

A. RATIONALE

If we examine the avowed purposes of schools of America and the current state of schools and match these to the findings of predictive studies of our evolving society, we can deduce that the American public is in need of a new kind of school.

In University City, staff members working cooperatively have thoughtfully agreed on goals: the schools of University City exist primarily to serve the youth of this community and the society in which they live by aiding students to become responsible, perceiving, self-directing, self-educating individuals who are capable of making decisions and value judgments (see Attachment E, "Statement of Beliefs").

Most public school educators of America would subscribe to the generalization expressed in this statement. The schools of America, however, are not presently adequate to meet the demands of society as we look toward the year 2000. Most districts have glaring deficiencies which become more marked as the impact of the new curricula is felt. Organizational patterns, curriculum outlines, materials, methods, facilities, marking systems, course requirements, and ideas about how children learn are obsolete.

Research now confronts us with better alternatives. Experimental setting across the country have shown us better ways to carry out the process of education but each experimental setting has been able to attack only one aspect or another of the total program. Partial adaptations are not enough.

In the new school for which we are searching, not only the rapid learner but each child would find success each day. He would also be faced with challenges which stretch his mind. He would be involved in discussions of complex issues and unresolved problems. He would feel that he has a part in shaping his own future. He would learn how to process information, find patterns and learn how symbols work for us. He would develop logical thinking, creative thinking, would learn investigative skills such as: how to formulate questions, how to order them into productive series, how to search for answers in a variety of places, how to organize ideas into principles and concepts.

The new kind of school would be committed to personalized education, to bringing every boy and girl into the mainstream of learning, to developing students who will become citizens capable of making important decisions in a world of boundless technological capabilities, increasing global interdependence, exponentially increasing knowledge, and rapid cultural evolution.

In the new kind of school a customary process would be reversed. In the conventional school the young child's program is loosely structured and moves toward tightening of controls and requirements as he proceeds through the K-1 program. In the new kind of school the young child's program would be systematically structured to activate his perceptive and cognitive functions. As he grows older, the program would move him toward more and more responsible freedom.

The new kind of school would move away from some ideas and toward others. Curricular content and method, the learning process, organizational arrangements, the human role, and material aspects of the new kind of school in contrast to the traditional American school are shown on the following chart.

This proposal is based on the assumption that most schools in the United States are operating much as described in the left-hand column and that

the School District of University City is presently moving on a broken front toward the new kind of school.

The local status can be assumed from the results of a recent survey of faculty opinion.

In December 1965, the 27 pairs of statements on the following seven pages were administered as a questionnaire to the total faculty of the School District of University City and to 30 outside consultants who visited our schools in 1964-65. A random sample of citizens of the community will also be surveyed.

Each respondent was asked to rate anonymously the University City school system's present position in relation to progress toward the "new kind of school" on a five-point scale and to state on another five-point scale the degree to which he agreed or disagreed with each newer goal as the direction this system should go.

The faculty survey has been tabulated and is enclosed with this proposal (see Attachment F, "Inquiry Into Change").

In general, the faculty agreed strongly with the goals of the "new kind of school" and endorsed the goals at a composite level of 4+ on a five-point scale. On our approach in daily practice to the new kind of school, a composite rating of the school system by the faculty is presently at the 3- level A careful study of the separate items of the survey indicate that the faculty rated the present program higher on some points than others.

University City is an older, well-established school system. By conventional standards it probably ranks among the best in the country. Staff complacency with past successes would not be surprising. But here we have a mature staff looking objectively at the program and thoughtfully telling us that a considerable gap exists between the operational program and the envisioned new kind of school described in the following pages. In this climate of awareness and concern lies an important challenge.

B. CURRICULAR CONTENT AND METHOD

Away From	Toward
Away from traditional programs and courses that are accepted just because they were always there but may not be appropriate for the individual learner, his era or his culture.	Toward an intelligent use of the findings of research as a basic factor in the selection of new curricular programs in the school. Toward a penetrating examination and reform of every segment and subject field of the total curriculum.
Away from curriculum plans that seek to cover all past knowledge.	Toward rearranging subject content so that key ideas and concepts are selected that are representative of each field as a whole; that provide clues to the entire discipline.
Away from an encyclopedic treatment of facts in the method of instruction.	Toward the utilization by students of the processes for discovering facts. Toward the meaningful acquisition of facts in relation to organizing principles and to finding solutions to problems.
Away from coverage of prescribed textbook material as a prime concern.	Toward developing perceptiveness in children and educating them to solve problems that will arise in a society whose nature we cannot accurately predict.
Away from doling out content to passive students at the memory level only.	Toward involving students actively in the "why," in learning to explore, to analyze problems and issues and investigate new topics.
Away from merely questioning over the assignment by the teacher with answers from the usual same few students. Away from merely exposing the child to routine situations in which other people have already worked out the answers.	Toward setting the stage so that each child can engage in an exciting search for real answers to real problems. Toward a responsive environment in which each child is involved in genuine discussion and interaction.

C. THE LEARNING PROCESS

Away From	Toward
Away from the idea of fixed intelligence, of an "inevitable" hereditary IQ, of too much reliance on or misuse of IQ scores.	Toward a search for ways to develop perceptions and extend intelligence; ways to develop the various skills and elements of thinking.
Away from "waiting" for readiness to happen.	Toward beginning early with more pertinent diagnostic measures followed by careful planning and programming of a variety of experiences to develop readiness in its many facets.
Away from overdependence on the stimulus-response theory of learning which seeks to teach facts that are already known.	Toward more use of the cognitive field theory of learning where the child calls on all of his perceptual functions, where he is taught to approach the world as something to be mastered, to feel he has an active part in shaping the future.
Away from dependence on extrinsic motivation such as rewards, stars, grades, marks, threats, punishment and fear of failure.	Toward intrinsic motivation which comes from the child's natural tendency to explore, manipulate and master his environment.
Away from a punitive school climate which tells the child in subtle ways that he is incompetent, is a failure, is not quite with the "bluebirds."	Toward a warm, supportive school climate in which each child feels the thrill of success no matter how slight, and perceives himself as personally important, as someone who can learn and wants to learn during all his life.
Away from narrow social class value systems which seek to perpetuate the prejudices of an earlier generation.	Toward mutual respect and appreciation for individual differences.

A NEW KIND OF SCHOOL

D. ORGANIZATIONAL ARRANGEMENTS

Away From	Toward
Away from isolated efforts where teachers work alone in self-contained classrooms, principal and faculty work alone in self-contained buildings, and school systems work alone in self-contained districts.	Toward teams, task forces, committees and other cooperative arrangements for teachers, principals, buildings, school systems, schools and universities, schools and curriculum centers, schools and lay persons or organizations to work together.
Away from a school basically organized as it was in the 1800's controlled by outdated standards, ruled by rigid traditional requirements such as the Carnegie unit, class time specifications and entrance-age laws.	Toward a school that is primarily concerned with opening the doors for learning, a school that works with external accrediting agencies to lift restrictions on the students' pursuit of learning.
Away from "track" plans or grouping systems based on one rigid criterion such as IQ, age, achievement scores or heterogeneity.	Toward a school which provides a flexible pool of teachers, students and aides so that many types of groupings are possible depending on the changing daily needs of the teaching-learning process.
Away from conventional fixed secondary schedules and over-stuffed elementary schedules which are planned and implemented by teachers working in isolation and which result in competition among subject field interests for the child's time.	Toward a mutually-planned daily variable schedule which provides time for teachers and pupils to plan and create better learning situations, which eliminate boredom and allow for flexibility in the school day.
Away from an organization based on rigid graded levels of instruction in which the school tries to fit the child to the curriculum; an organization which forces the child to cover a set amount of material each year: no more, no less.	Toward an organization based on an ungraded concept in which the school looks at what the child is ready for; the diagnosis of students determines the personalized selection of programs and the organization allows each student to progress from where he should start to as far as he can go.

D. ORGANIZATIONAL ARRANGEMENTS contd.

Away From	Toward
Away from a school in which teachers are employed on the basis of a "magic" formula such as one to twenty-five students. Away from a school day in which the teacher spends all of his time in the direct instruction of students.	Toward a school in which the budget may be flexibly used to employ both certificated and noncertificated personnel on the basis of skills needed. Toward a school day which provides time for teachers to do more than instruct; that provides time to plan, prepare, develop programs, evaluate and confer with pupils, parents and staff.
Away from an authoritarian regime in which the student's actions must be accountable each moment to the control of the teacher.	Toward a school which nurtures the development of individual and group responsibility; a school that provides opportunities for students to grow in ability to make decisions, to make value judgments, to use time wisely, to choose options.
Away from a rigid reporting and grading system that compares one student with another or compares him to "perfection" regardless of his background or experience.	Toward a reporting system that provides for a broad evaluation of the student's individual progress in the many facets of school learnings.

E. THE HUMAN ROLE

Away From	Toward
Away from a student role which reflects disinterest in learning, antagonism to school or a feeling of captivity.	Toward a student role in which he finds excitement in learning, understands, shares, is involved in decisions and evaluation.
Away from a teaching role which is mainly concerned with covering the book even though it may be at the expense of the child's needs, feelings, interest, readiness and background. Away from employment of any teacher who is not committed to the "new kind of school."	Toward a highly professional teaching role. Toward development of the teacher who interacts with many components of the professional world, who knows professional literature and relies on research evidence rather than custom or myth. Toward development of the teacher who understands child growth and development, uses methods of inquiry, knows the structure of his field, calls on modern resources. Toward development of the teacher who is warm and understanding; who is a guide, motivator, stimulator and consultant; who reaches every student in class; who starts as many as possible on independent pursuits of study; who involves every student in meaningful discussions; who seeks to develop socially responsible adults; who is search oriented and constantly growing and learning with the students.
Away from a citizen role which implies a dichotomy between private life and public responsibility or a dichotomy between educators and lay people. Away from a narrow or one-sided citizen view of the responsibilities of the school.	Toward a citizen role which implies commonality of purpose with educators and with children, which implies combination of efforts toward a mutual goal. Toward a responsible citizen role which recognizes the interdependence of society's components and the ever-widening sphere of each community.

E. THE HUMAN ROLE, contd.

Away From . . . . . Toward

Away from an outmoded administrator role in which individual autonomy, independent little islands, ostrich-type attitudes attempt to solve problems which are created by outside forces and which have solutions only through the efforts of many people. Away from irresponsibility for adapting to desirable change.

Toward a team concept of administration in which teams made up of persons from many disciplines work as a unit, capitalizing on individual competencies as cooperating parts of the total complex of skills and understandings needed. Toward a highly professional role for the administrator (superintendent, principal, director, supervisor, coordinator, specialist) in which he is committed to the cause of education in America, is cognizant of research findings, is competent in bringing theory into action, is capable of combining many components into a highly effective school program. Toward an administrative concept which recognizes the growing complexity of the school's relation to society and a concept in which school administrators will coordinate goals and efforts with other professional leaders in public services.

F. MATERIAL ASPECTS

Away From	Toward
Away from single textbook courses with routine assignments. Away from a narrow library concept that expresses its purpose as custodial of books.	Toward student explorations into new realms of sources and materials strategically planned to arouse the student's imagination and stimulate his curiosity. Toward a new library concept, a learning resource center with a physical environment that invites learning; that includes far more than printed materials; that includes films, recordings, readings, transparencies, slides, pictures, filmstrips, learning laboratories, television, and computer instruction and services.
Away from school facilities constructed in eggcrate patterns which lock activities into limited spaces and prohibit the flow of multiple and complex learning activities. Away from the needless interruption of bells and intercom speakers.	Toward school facilities which provide for a great deal of flexibility in many different kinds of learning stations. Toward provision of large, open areas: learning resource centers, science centers, art centers, other centers. Toward teaching arrangements whereby teachers and students may be involved in large group, small group and individual instruction, and whereby teachers, too, have work areas.
Away from acceptance of the present state of finances for the schools of America in which more money is said to be spent on cigarettes and cosmetics than on education.	Toward a responsible campaign for new sources of local, state and federal funds compatible with the high priority value that must be placed on the task ahead in the schools.

III. A PROPOSED PLAN FOR ACTION

A. PURPOSES

The philosophical goal of this program design is: to create far more effective education for boys and girls by creating a new kind of school; a school intended to aid students to become more responsible, perceptive, self-directing, self-educating and competent in making decisions and value judgments.

The proposed plan has four interrelated, practical objectives which seek to move into a broader conception of curriculum development, to support it with organizational development, to use appropriate methods of evaluation, and to devise strategies for broader sharing and dissemination of promising practices and resources.

Curriculum Development

Innovations introduced into our educational program have revealed the need to consider an entire complex of interrelated factors in constructing the whole curriculum. New dimensions of diagnosis and interpretation, of curriculum design, and of in-service education are needed.

Organizational Development

As demonstrated by the Comprehensive Project in University City, the stress of innovations introduced into the curriculum points up the need to modernize a traditional school organization. New dimensions of administrative organization, of teacher-pupil organization, of communication, of citizen-teacher dialogue, and of induction of new teachers are demanded if we are to have a new kind of school.

Evaluation and Research

In a long range study we would be able to make a continuing assessment of the effects on children, teachers, and community of the new kind of school and of the processes used in attaining it. In a long range program, results of research here and elsewhere can be used to help the school system find procedures for continually resetting objectives and renewing the program.

Dissemination

The School District of University City would offer services and information to other schools and would draw on the work done by others. A cooperative sharing would take place through invitational conferences, workshops, visitations and sharing of materials and resources.

Each of these objectives is discussed in more detail below, together with a description of procedures to be used.

1. Curriculum Development

As we have worked with new developments in segments of our education program, we have come to realize that we must consider the curriculum as a complex whole and that the strategy for attack must be on a broad front. Successful curriculum development for the new kind of school will depend upon insightful methods of diagnosis and developmental programming, massive and effective in-service education, and teacher-involvement in curriculum designing. All of these must be undergirded by modernized school organization, productive use of research and evaluation, and effective methods of dissemination.

a. Diagnosis and Developmental Programming. Success in school and later life may be largely determined by the extent to which the child's motor, auditory, visual, verbal, and cognitive functions are developed during the critical years before age eight. To develop these functio early in the child's schooling we must first diagnose, then offer appropriate programming. By constantly rediagnosing the levels of the child's development and reprogramming to meet his needs, curriculum decisions can be based on the child's unique levels of develop rather than on external standards. Thus, the groundwork for a non-graded program can be established.

In University City, within the last year, a small corps of teache has become competent in the use of new diagnostic tools (see Attachment B, The Impact of New Ideas, Volume II, page 45). Kindergarten teachers are engaged in designing unique new programs to develop children's motor, auditory, visual, verbal, and cognitive functions.

Some experimentation has also been done with the use of new diagnostic tools, interpretation, and unique programming with intermediate and junior high school children.

We propose to train more teachers in the use of the new diagnost tools and to provide in-service time for kindergarten, primary and intermediate teachers to work together in designing activities and planning personalized programs for young children. Specialists on our own staff would be involved; for example, physical education staf members can offer counsel and service in the motor area.

In the secondary schools specialized in-service programs would be developed for guidance personnel as they move into a new role in which they team with teachers by contributing new dimensions of diagnostic aid in programming for individual students. Consultant help would be needed in the daignostic-interpretative aspect of guidance.

Proposed New Activities :
Diagnosis and Developmental Programming

Training of teachers and guidance counselors in new diagnostic methods.

Staff time to administer and interpret diagnostic instruments.

Staff time to develop materials, activities and programs to match diagnostic findings (summer).

Consultant team of specialists to work with teachers and counselors.

Workshop time during the school year for current problems.

b. Curriculum Design. Two basic principles underlie our proposed work in curriculum design and development: the curriculum must be based on a broad conceptual framework and every teacher must be involved in curriculum planning.

1) Conceptual Framework. Among the factors included in the conceptual framework on which the curriculum is to be built are: the nature of today's learner, modern views of the learning process, the critical importance of early childhood education, the effect of school climate on autonomy, the need for group dynamics, recognition of social and cultural evolution, the interrelation of content and process, levels of content and process, interdisciplinary integration, the importance of adequate materials and

media, and flexible, nongraded organizational practices (see Attachment G, "Factors to Consider in Curriculum Design and Development: A Conceptual Framework").

An examination of the studies of Piaget, Bruner, Hunt and others reveals to us that if schools can match new insights into the structure of the curriculum with new insights into the structure and development of perceptual and cognitive powers of children, we can move into a new era in education.

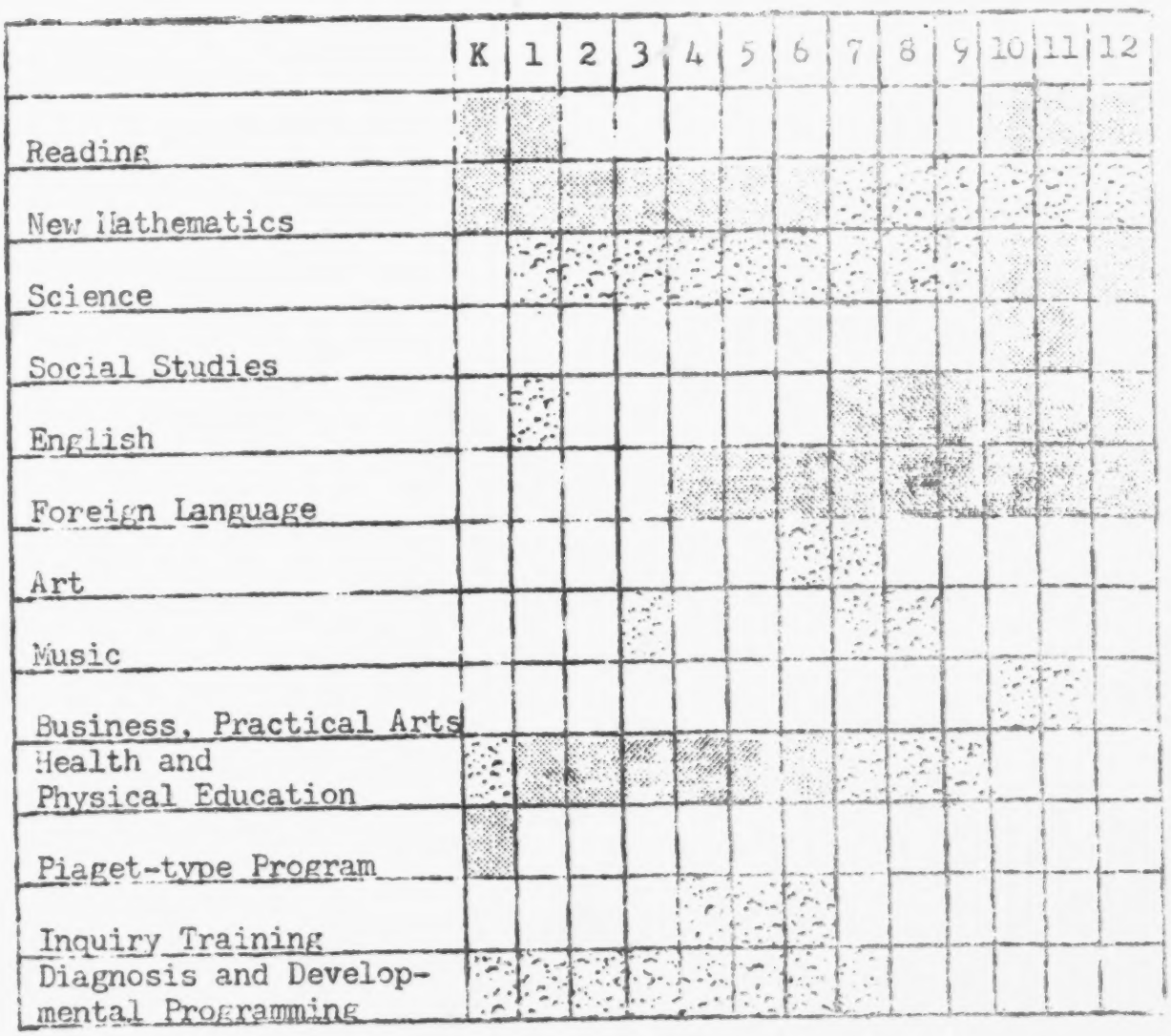
In the past we have probably done children a disfavor by setting up a kindergarten program which "followed the child's interests," was loose and unstructured and permitted much freedom As he moved along in school he encountered less and less freedom, a tightening of restrictions, and an attempt as he came through high school to compress him into a somewhat narrow curriculum program.

We propose to reverse this process. As the child enters kindergarten, we would assess his developmental levels, offer a program structured to develop his perceptual and intellectual powers and as he moves along through school, offer a program designed to develop: the skills of information processing, the spirit of inquiry, thought processes, an approach to curriculum which reveals the structure of the discipline, and basic concepts in each subject field. The program would stimulate the student to develop autonomy and to select wise options as he moves throug school.

Curriculum development, processes in education and diagnosis of the child's stages of development with appropriate programming would be tied together and combined with teacher education on the job.

2) Involvement of Teachers in Curriculum Change. The following chart shows subject fields and grade levels at which teachers in University City are now intensively involved in curriculum development and areas in which somewhat spotty exploratory work is underway.

New Curricula in the School District of University City



Intensive involvement of teachers in change

Exploratory change in some classrooms

Curriculum change cannot be left to a few members of the staff or to a spotty plan of implementation. Both present teacher and incoming teachers must be involved. Student teachers must be involved on a larger scale so that we can train recruits for the new kind of school.

We estimate that one out of every three persons on our present professional staff is now closely involved in at least one segment of curriculum change leading to the new kind of school. One out of every three persons has developed competencies in curriculum development. With the assistance of consultants these staff members could work with other teachers in peer relationships planning K-12 sequences, identifying concepts and basic ideas, drawing from the work of other projects and curriculum centers as well as our own in finding materials and methods that are in harmony with our conceptual framework.

We propose that a curriculum design committee composed of six teachers and administrators who are representative of those with competencies described above would serve as a steering and coordinating group. The design committee would work with teachers and administrators in establishing priorities and plans for a five-year project. The committee would organize the in-service programs, would arrange for faculty teams and task forces, would procure consultant help, would help provide outside resources and contacts to bring into reality the curriculum design needed for the new kind of school.

Working time would be provided for members of the curriculum design committee.

Proposed New Activities: Curriculum Design

Working time for the curriculum design committee (summer and school year).

Consultant on curriculum design (part-time).

In-service (see next).

c. In-Service Education for Teachers. With teachers we propose to use techniques that we would like them to use with students. Active involvement of the learner in the learning process, a search orientation, imaginative uses of new media, and effective uses of a wide variety of resources would be integral components of the in-service program.

During the summers a unique and comprehensive in-service program would be in progress. Participation of the majority of the professional staff during the summers would provide the much needed opportunity for staff members on a broad scale to be involved in the development of the new kind of school. Not every teacher would take part every summer but every teacher would work with other teachers who are participating in the summer work. Over the five-year span a plan would be developed for continuing renewal of the educational program so that freezing at any point in time would not occur.

1) Summer Work. The summer institute would run for six weeks. Teachers would be paid for their time and would also be given salary credit. The organization of the institute would involve large group presentations, problem-centered small group work, and individual research.

Each day's work of the summer institute would include a large group presentation for the total group. The presentations would be prepared by teachers, administrators and outside consultants. Here would be laid the conceptual framework for the curriculum with presentations on the nature of today's learner, modern ideas about the learning process, classroom climate, pupil autonomy, social and cultural evolution, group dynamics,

principles involved in content and process, structure, inquiry, etc. Role playing, teaching strategy, films and tapes, gaming theory activities, panel discussions, lectures and a wide variety of ideas would be brought into play.

In the small seminars group dynamics would be employed with techniques that teachers could use in the classroom. Dialogue or interaction in small groups would imply an interplay among participants rather than the relaying of the information from an authority to subordinates. Bruner's ideas of the structural possibilities of the educational process matched to field psychology in learning and practiced by opportunities for interaction may hasten the development of insight into knowledge into curriculum and into education in general. Teacher involvement in curriculum design, administrative teaming and organizational planning (discussed later), and classroom interaction are all aspects of group dynamics which can be used in in-service educati and capitalized on in curriculum planning.

The small group seminars would not only provide opportunitie for interaction in discussion but would also develop into teacher work in the production and selection of teaching-learning materia and activities for the classroom during the ensuing school year. The small groups would be problem-centered. The following list is illustrative of current problems, is by no means complete, and priorities need to be planned.

> What is the best reading and writing program to follow i.t.a.?
>
> What are the key ideas and concepts in social studies and how should we build our program?
>
> How can we draw from the rich resources provided by the new English movement in language, literature and composition?

How can we move into a new mathematics program in the secondary schools to follow our elementary modern math program?

What key concepts and ideas should be developed in K-9 science program and how can we develop the process approach?

What is the place of the arts and humanities in the total curriculum?

What is a modern practical arts program?

How do we relate the Piaget activities in kindergarten to the curriculum K-12?

How do we develop the learning resource centers and use them most effectively to encourage independent research and study?

What are techniques for teaching large groups of students effectively?

How do teachers develop interaction among students in small groups?

How do we guide independent study among students?

How can we make best use of physical education staff competencies in relating motor development to intellectual development?

Individual research by teachers would be brought to bear on small group work and would provide substance for presentations for the large groups.

2) School Year In-Service. The work of the summer would be continue through the school year but in a somewhat different manner. Enou extra staff would be employed so that rotating and maneuverable cadres of teachers or individuals could be drawn from classrooms for varying periods of time to produce materials and activities and to work directly with other teachers in developin competencies in experimentation, in the new curriculum programs, in the inquiry method, in applications of modern theories of learning and in the use of technology and resources.

New teachers would be drawn into tailor-made meetings and workshops (discussed in a later section).

3) Professional Outreach. To support the massive in-service program we would develop in depth our professional outreach and liaison with individuals and groups engaged in research and development. Contacts would be stepped up markedly with research and development centers which can assist us in implementing needed changes in the structure of subject matter which make up the essential elements of the curriculum. In addition to the consultants mentioned under diagnosis and curriculum design, temporary consultants would be needed to work on problems under study. Some full-time consultant help would also be needed. These would be persons outside the school system who have particular competencies and who would work in depth with staff, students and citizens. Several consultants-in-residence would be invited to live with us for varying lengths of time, possibly a year or a semester or intermittently on a continuing basis. The work of the consultants would take different forms: seminars, involvement in the classroom and in team situations, conferences, research studies and other forms of activity.

The roster of consultants might include: specialists in group dynamics, social psychologists, specialists in the various disciplines, and particularly social scientists who would help us understand the difficult role of the social sciences, inter-cultural problems and help us design an adequate social science curriculum.

Another important facet of professional outreach would be professional literature and the study of related research. The

Instructional Services Center for teachers would redouble its efforts to provide resources related to new developments in education. The employment of a research assistant would be valuable in this area.

In addition to these types of professional outreach, expenditures would be needed for visits to other centers and to participate in conferences to gain familiarity with promising practices elsewhere.

Proposed New Activities:
In-Service Education for Teachers

Comprehensive in-service program for teachers, six weeks each summer.

Employment of several staff members to release cadres and individual teachers on a rotating, maneuverable basis.

Consultants (occasional and continuing).

Time during the school year for teachers to work together occasionally on curriculum problems.

Travel to centers, conferences.

Materials development.

Research assistant and secretarial assistance on materials.

2. Organizational Development

The "new kind of school" can be brought into reality only by focusing on organizational development simultaneously with curriculum development. In University City, observers have noted that organizational development has not kept pace with curriculum development; that inadequate communication, inefficient procurement of supplies and services, traditional administrative roles, and out-of-date organizational patterns within buildings may be hindering what would otherwise be a dynamic, creative program.

Such a situation is not unique to University City. Theodore R. Sizer, writing in the ESI Quarterly, Summer-Fall 1965, says, "The major weakness of the curriculum reform movement of today is that it has seemed to accept the way the schools presently are organized." At the recent Teachers College, Columbia University, Invitational Curriculum Conference on November 8-10, 1965, Kenneth B. Wann of Teachers College said that curriculum reforms are based on an archaic organization and that we need a new school organization.

In University City, we propose to attack the problems of organizational development by working in five areas simultaneously: administrative retraining and reorganization, teacher-pupil reorganization, communication, citizen-teacher dialogue, and induction of new teachers.

a. Administrative Reorganization. Administrative reorganization would come about through a planned and intensive program. Diagnosing of organizational problems would be the first step. Then, through a carefully planned program for organizational development which would involve self-study and self-directed change, team relationships based on problem solving would be built to promote mutual trust, support and feelings of personal worth. Through self-study the school would learn how to gain maximum organizational effectiveness through the wise use of people.

Can the same manpower be reorganized into a more effective team? Outside consultant assistance on organizational development would be needed.

The nucleus of the plan would be two weeks of laboratory-seminar training for the administrative staff. In the first week of laboratory sessions the central administration and thirteen principals would be

involved. The second week would be laboratory sessions for team leaders, coordinators and department chairmen. In the laboratory sessions the administrators would develop competencies in diagnosing organizational problems, examine their operating practices as a work team and through steps of tear development become effective as a problem solving team. They would also be trained to conduct laborator sessions for their own staffs. (For an example of this type of team training, see Blake and Mouton, The Managerial Grid, or Argyris, Integrating the Individual and the Organization.)

The laboratory sessions would be held during the first summer of the project. In the following summers and during the school terms carefully planned analytical studies, conferences, seminars and workshops would be developed in sequences to build on one another, and would be focused on the major components of administrative competency such as human relations, team planning, facilitating the process of change, decision making, and technical skills (interviewing, personal and group counseling, public speaking, writing bulletins, efficient procuring of supplies and services)

From this program would come restructuring of the organization so that it would no longer be a collection of jobs with isolated persons but rather, an interacting network of teams.

Proposed New Activities:
Administrative Reorganization

Administrators' laboratory training sessions.

Analytic studies, conferences, seminars, workshops for restructuring the administrative organization.

Consultants. Travel to conferences, programs.

b. Teacher-Pupil Organization. In the past schools have tended toward separateness of parts of the organization with separate classrooms, departments, subjects, and buildings operating in isolation from the rest of the school system. We propose to move away from isolated efforts toward involvement in teams, cooperative teaching, and task force committees so that teachers working together can plan, prepare, teach, observe, critique and evaluate.

New curriculum developments demand an organization based on an ungraded concept in which the school looks at what the child is ready for rather than asking whether he is ready for a particular course. We are working toward flexible scheduling arrangements which provide a pool of teachers, students and aides so that alternate types of groupings become possible depending on the changing needs of the learning process. Mutually planned schedules that vary from day to day are in preparation in order to provide time for teachers and pupils to plan and create better learning situations.

Remodeling of facilities is in progress which will make possible flexible arrangements. Learning resource centers are being built in each building and a director of learning resource centers has been added to the staff. Books, audio-visual materials, equipment, and other new resources are being introduced as rapidly as possible. Teacher aides and learning resource center aides have been added to assist in the implementation of new organizational patterns for teaching and learning.

An urgent need, mentioned earlier, is for in-service education of teachers. Cooperative planning and nongraded programming make unprecedented demands on teachers. Teachers need direct assistance in the classrooms. Some released time is needed for teachers who have

gained competency in the new organizational patterns to work with traditional ones so that many more persons can become competent with flexible scheduling and grouping arrangements.

Proposed New Activities: Teacher-Pupil Organization
Workshop time during school year.
Specialist assistance on organizational arrangement. Computer programming.
(Remodeling of facilities for team teaching and other flexible groupings and for learning resource centers in each building will be financed by the School District of University City to support the program. An estimated $500,000 will be spent over the next five years.)

c. Communication. Organizational restructuring would involve the heightening of communication vertically, diagonally and horizontally. New feedback opportunities would be built into the system. Outside expertise would be called on to study and redesign the communication processes of the school system.

The school district would employ a full-time journalist and secretary who would strengthen the communications program. The journal would devote full time to improvement of journalistic communication including the utilization of television and other media as well as writing for the public on the work of the school system. He would also assist the staff in writing articles for professional journals and in producing staff newsletters to communicate information of progress in the new programs.

Proposed New Activities: Communication
Consultant on communication processes.
Public relations staff.
Television time, new types of publications.

d. Citizen-Teacher Dialogue. To attain the "new kind of school" a systematic and thorough program to promote citizen-teacher dialogue must be instituted. Educational changes cannot be significant witho a different concept of citizen education. We are requesting funds for a small staff of persons knowledgeable in the field of professio education and in citizen education to work systematically at this target for a sustained period of time.

Seminars, cottage meetings, visits to homes, work with organize community groups would be part of the work of this staff. A particu emphasis would be placed on parent education in relation to the earl childhood years.

Proposed New Activities:
Citizen-Teacher Dialogue

Staff and educational program of interaction with citizens

e. New Teacher Induction. The selection and training of new teachers is a critical factor in the success of the new kind of school. We propose to move strongly into tailor-made in-service for new teacher re-examination of our personnel practices, and pre-service training of teachers in cooperation with neighboring universities.

1) Tailor-Made In-Service for New Teachers. [illegible] ten days of released time from class would be provided [illegible] each new teacher during his first year to take part in workshops and seminars. Workshops would be of a how-to-do-it nature including the use of audio-visual materials. Role playing and discussion meetings would prepare new teachers to meet new situations such as parent-teacher and pupil-teacher conferences.

New teacher seminars would be conducted along self-directive, pupil-centered lines for uninhibited interchange of experiences, feelings, "gripes," and observations among new teachers in groups of eight or ten under the leadership of a "client-centered" leader. These sessions would be held weekly for a two-hour period over four to eight weeks with possible extension on a voluntary basis by teachers themselves. At present we are conducting a small pilot project in which a psychologist is conducting seminars with two groups of eight new teachers for the purpose of developing self-understanding through nondirective methods so that new teachers may themselves develop generalizations about teaching. We propose to expand this pilot project to include all new teachers in the system.

Each new teacher would also be the special responsibility of a person now in the system. A teacher-advisor or team member would observe in the new teacher's classroom and give him practical specific pointers. The teacher-advisor would also invite the new teacher to observe various new activities in other classrooms. Released time would be allowed for such visits. The advisor would make himself available at any time to help the new teacher but would not "report" on him or evaluate him. One teacher-advisor could serve several new teachers. This would be a different type of service than the traditional "buddy" has been expected to render.

Preferably new teachers would be matched for teaming situations so that they could work more closely with dynamic, innovative teachers.

New teachers would be encouraged to take part in the six-week summer institutes from the beginning of their tenure in the school system.

2) Re-examination of Personnel Practices. Candidates for teaching positions would be more carefully screened than ever before so that recruits who are enthusiastic about the new kind of school would be employed. The present teacher appraisal and retention practices would be re-examined and revised in harmony with the spirit of the new kind of school.

3) Cooperative Pre-Service Training. Curriculum development projects have been found to attract new recruits and have helped to bring into the schools of America a larger portion of highly talented young men and young women. This has been demonstrated in University City by cooperative arrangements with Webster College of St. Louis which have brought into our classrooms student teachers who are competent in the use of Educational Services Inc., Madison Project and other new developments. By moving into a broad program of curriculum and organizational development, University City hopes to attract this type of student teacher.

In addition to the Webster College arrangements, plans are now underway with Washington University of St. Louis to develop student teacher training centers at three of the buildings in our system. Professors from Washington University will work with teachers and student teachers in curriculum development and teacher training.

The school system will also serve as a laboratory in which other universities in the St. Louis area would cooperate with the school system in studying the knowledge that must be taught and the best ways to teach it. Preparation of teachers in the metropolitan area would be enhanced and a supply for local systems would be improved.

Proposed New Activities:
New Teacher Induction

New teacher workshops and seminars.

Time of advisors for new teachers.

3. Evaluation and Research

It is common knowledge that schools have difficulty in evaluating changes in pupils other than those reflecting academic achievement. How to evaluate students' development in levels of inquiry, motivation, socia responsibility, value judgments, perceptiveness and decision-making are difficult challenges. Other subgoals such as increase in literary and artistic appreciation, intellectual curiosity, the use of resources in the library, listening ability, and concentration are equally difficult to evaluate. Some beginnings have been made in assessing change in attitudes and in abilities to conceptualize.

We propose to evaluate all innovations systematically, using both subjective judgments and objective data. When adequate instruments are not available from outside sources, special instruments would be develope locally.

a. Evaluation of Academic Learnings. During the Comprehensive Project, University City schools made a research study on each experimental intervention. Research will continue on the effects of various types of intervention on academic learning.

A data bank and a data system have been established for making long range studies. Through data collected on standardized tests, we are now able to study the changes in the achievement of students over a period of years. Experimental and control groups can be identified and directions in which the school system is moving can be studied.

b. Attitudes Toward the New Kind of School. We have administered a questionnaire describing the school from which we are moving and the school toward which we are progressing. On each item we have asked individuals to indicate where they think the University City school system is now. On each item, also, the individual was asked to state whether he agrees or disagrees with this as the direction in which the school should move. Administrators, teachers, non-certificated staff members, and outside evaluators were surveyed. By making such an attitude study at future points in time we can assess changes in attitudes and progress toward the "new kind of school." (See Attachment F, "Inquiry Into Change," a report of a survey, December 1965.)

c. Organizational Patterns. A board of evaluators composed of a professional person in educational research, one or more lay community representatives, educators from neighboring districts, and a local staff member as liaison officer, would watch the implementation of the educational program plan. All would be knowledgeable people, including at least one expert in school organization. This board of evaluators would be involved throughout the project. They would keep records so that they could look back to see what progress was made. Throughout the term of the study they would keep up to date on the various innovations, visit classrooms, meet regularly, and although having no executive function, could make observations or suggestions to the staff or board of education. They would also have a public relations function in reporting to the school, the community and the professional world on change in the University City schools.

A measure to assess changing organizational patterns might involve a record of staff assignments during the term of the project. Innovations could be listed by building. A tally could be kept of which teachers have participated in various new developments.

d. Effect on the Pupil. Observation schedules, such as those described by David Ryans or Bryce Hudgins, might be used in the classroom. In these procedures tallies are made, for example, of positive or negative reinforcements being used or of the pupil's span of attention.

Observers could keep a count of the contributions of students in seminars in contrast with the same group of students in other periods to assess whether students are learning to express themselves logically and to work with peers. Provision would be made to assess students' contributions.

A specially constructed survey of student values is planned. This instrumentwould be designed to measure the relative importance to the student of such values as intellectual maturity, intellectual enthusiasm, social responsibility, personal aspiration, feeling of personal worth and coping with change. . This instrumentwould be used in comparison of student values with those of educators and citizens in relation to educational goals and changes in student values over a period of time. Hopefully, some measurable changes in student valueswould be related to innovations introduced during the project.

The amount of library reading and the types of materials used in the library could be determined from time to time.

The nature of individual student projects done outside of class in relation to their quality might be evaluated by neutral observers.

A long range study might be made of college longevity as compared with earlier classes from the University City High School.

Adaptations of some of the attitude scales used in the Eight-Year Study might be made. Instruments on social sensitivity and on interpretation of literature are available through Educational Testing Service.

Parents could be asked to keep records of what the child does in the way of educationally motivated activities at home in order to assess his degree of self-direction and curiosity. This could be used at a later time to study the direction of changes.

e. Effect on Teachers and Administrators. Lesson plans or guide sheets of teachers might be examined to see whether teaching techniques are really changing. Tape recordings could be made and interaction analyses conducted.

The changing roles of staff persons could be analyzed by comparison of logs now and later.

A special edition of the survey of student values is planned for use with teachers. It will be couched in terms of educational goals and will be designed to be precisely parallel with the student form. It will be used both in comparisons with student attitudes and for long range changes which may be correlated with innovations brought about by the project.

f. Effect on the Community. A systematic study of community goals in education as related both to student and teacher objectives and to changes introduced by the project is envisioned. The proposed instrument again is a special version of the survey of student values adapted this time for use by an appropriate sample of parents and other citizens.

Relative educational values are undoubtedly changing, through modifications in the national and community climate as well as by innovations in local educational practice.

While the causes of attitude change may not be determinable precisely (any more than the cause of change in the attitudes of students and teachers can be pinpointed), information as to the direction of change can be used in new educational planning.

g. Need for Evaluation. Although the area of evaluation is complex, it is essential. Continual resetting of objectives and renewing of the educational program is the purpose of evaluation. How sophisticated the evaluation becomes will depend upon the competencies and time of the persons involved. Teachers and principals need help in learning about newer methods of observation, data collection, analysis and interpretation. To bring improvements in professionalized teaching and effective learning will require significant attention to evaluation and assessment.

Proposed New Activities:
Evaluation and Research

Expansion of research department including:
- a. Teachers or administrators recruited from the staff, one or two at a time, to work on research and evaluation.
- b. Clerks.
- c. Consultant on research design and evaluation.
- d. Statistical research associate (graduate student from a university).
- e. Psychometric teams for specific occasional tasks.

Board of evaluators.

Computer services.

Measuring instruments.

Research reports.

4. Dissemination

Dissemination of information about new practices and research findings would take two forms: seeking information from other centers and sharing information from our district with others.

a. Seeking Information Elsewhere. University City has established communication with researchers and innovators in all parts of the United States. We would keep up this line of communication and broaden it further. One or two staff members would be assigned the responsibility for keeping up with educational innovations elsewhere and making them operationally available to teachers in University City.

b. Sharing Information from Our District. The summer in-service institutes would be open to representatives of other school systems on a reasonably limited basis. Observers from other school systems would have firsthand opportunities to learn about new programs in University City.

Outside observers would also be invited to workshops, conferences and seminars that would take place during the school year. Classrooms would be open for demonstration to visitors at all times.

Special-interest invitational conferences would be held on topics such as "Strategy for Curriculum Change." Neighboring schools would be invited to participate as well as a few schools from a distance.

Proposed New Activities: Dissemination
Local invitational conferences.
Publications.